<u>**Listing of Claims:**</u>

This listing of claims will replace all prior versions and listing of claims in the application:

<u>**Listing of Claims:**</u>

1.   (currently amended) A method for producing an artifact-corrected image of a negative jaw impression of a ~~patient's~~ jaw <u>of a patient, the jaw containing teeth</u>, the artifacts resulting from the presence of <u>existing</u> metal in <u>at least one of</u> the patient's <u>teeth or jaw</u> ~~mouth~~, comprising:

forming a negative impression of said <u>patient's</u> jaw;

producing a first digital image of said negative ~~jaw~~ impression <u>of said patient's jaw</u>;

producing a second digital image of said negative ~~jaw~~ impression <u>of said patient's jaw</u> and said <u>patient's</u> jaw, including said artifacts; and

comparing said first digital image and said second digital image to produce an artifact-corrected computer representation of said negative impression and said <u>patient's</u> jaw.

2.   (currently amended) The method of claim 1, further comprising adjusting said negative jaw impression during formation to allow easy manipulation of said impression on said <u>patient's</u> jaw.

3.   (currently amended) The method of claim 1, further comprising setting at least one tooth implant model in said negative <u>impression of said patient's</u> jaw ~~impression~~, prior to producing said images.

4.   (currently amended) The method of claim 1, further comprising incorporating at least one reference marking in said negative impression of said patient's jaw, ~~impression~~ wherein said at least one reference marking is visible in said first and second images.

5.   (canceled).

6.   (previously presented) The method of claim 1, wherein said first and second digital images comprise voxels.

7. - 10. (canceled).

11.   (previously presented) The method of claim 1, further comprising forming an image comprised of an upper portion of the first image and a lower portion of the second image wherein said upper portion is free of said artifacts.

12.   (previously presented) The method according of claim 1, further comprising setting at least one drilling trajectory in said artifact-corrected computer representation.

13.   (previously presented) The method of claim 1, further comprising using said artifact-corrected computer representation to produce a drilling template.

14.   (canceled).

15. (currently amended) The method of claim 1, further comprising using said artifact-corrected computer representation to produce a model of said patient's jaw.

16. (canceled).

17. (currently amended) The method of claim 15, further comprising using said model of said patient's jaw model to produce a drilling template.

18. (currently amended) The method of claim 1, further comprising using said negative impression of said patient's jaw to produce said drilling template.

19. (canceled).

20. (withdrawn) A method for producing a model of a recipient jaw from which a drilling template is machined, comprising; producing a 3D digital image of said recipient jaw; placing bore trajectories in said 3D digital image; and producing a model of said recipient jaw from said 3D digital image.

21. - 22. (canceled).

23. (withdrawn) The method of claim 20, comprising boring said recipient jaw model to produce boring trajectories within said negative template.

24. - 25. (canceled).

26.   (withdrawn) The method of claim 20, comprising placing said drilling template in said recipient jaw, making an image and determining that it seats properly in said recipient jaw.

27.   (withdrawn) The method of claim 20, comprising placing said drilling template in said recipient jaw, making an image and determining that the planned trajectories are properly aligned.

28. - 30. (canceled).

31.   (withdrawn) A digital image merging system, comprising: a) a first input adapted to receive a first digital image of a recipient jaw comprising artifacts; b) a second input adapted to receive a second digital image of a negative impression of said jaw; and a digital merging unit adapted to receive and merge said first and second digital images to form a reproduced image having reduced artifacts with reference to said first image.

32.   (withdrawn) The system according to claim 31, comprising a tooth implant model setter that sets one or more tooth implant models in said negative jaw impression, prior to producing said images.

33.   (withdrawn) The system claim 31 comprising one or more reference markings in said first and second images, wherein said digital merging unit merges said first and second images using said one or more markings.

34.   (withdrawn) The system of claim 31, wherein said first and second digital images comprise voxels images.

35. - 39. (canceled).

40.   (withdrawn) The system of claim 31, wherein said system comprises a drilling template modeler that receives said reproduced image and models a drilling template based upon said image.

41. - 43. (canceled).